



COUNTY SANITATION DISTRICTS OF LOS ANGELES COUNTY

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GRACE ROBINSON HYDE
Chief Engineer and General Manager

June 3, 2014
File No. 31-320.10

Mr. Chris Marks
Terra Renewal
12812 Valley View St., #9
Garden Grove, CA 92845

Dear Mr. Marks:

Transmittal of LACSD JWPCP Biosolids Report

Attached please find the LACSD JWPCP Biosolids Report for April 2014. The Report includes the following data for your files:

- | | | |
|-----------|---|------------------------------|
| Biosolids | - | total and soluble metals |
| | - | digester performance |
| | - | detected priority pollutants |
| | - | miscellaneous constituents |

I certify, under penalty of law, that the Class B pathogen reduction requirements in 503.32(b)(3) and the vector attraction reduction requirements in 503.33(b)(1) have been met. These determinations have been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that the pathogen requirements and vector attraction reduction requirements have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.

I certify, under penalty of law, that the biosolids produced at JWPCP are non-hazardous in accordance with Title 22, California Code of Regulations (CCR), Division 4.5, Chapter 11, Article 3, Section 66261.24(a)(2)(A) Table II (Priority Pollutant Metals).

Attached are the analytical testing results for JWPCP in accordance with Title 22, California Code of Regulations (CCR), Division 4.5, Chapter 11, Article 3, Section 66261.24(a)(2)(A) Table II (Priority Pollutant Metals).

Should you have any further questions or require additional information, please contact Matt Bao at (562) 908-4288, extension 2809.

Very truly yours,
Grace Robinson Hyde

Mike Sullivan
Division Engineer
Monitoring Section

MF:GS:lmb
Attachments

#2916758 v2

DENALI_002253

Notice and Necessary Information
To be Completed by Preparers of Class B Biosolids

Facility Name: Joint Water Pollution Control Plant (JWPCP)

Monitoring Period: 04/01/2014 to 04/30/2014

1. Pollutant and Nitrogen concentrations (report results in mg/kg on a 100% dry weight basis. Attach lab analyses).

	As	Cd	Cu	Pb	Hg	Mo	Ni	Se	Zn	Org-N	NH ₃ -N	% solids
Result	8.56	4.5	335	18.4	0.69	19.3	46.8	24.6	773	47,200	6,720	28.9
Table 3	41	39	1500	300	17	na	420	100	2800	na	na	na
Table 1	75	85	4300	840	57	75	420	100	7500	na	na	na

Sampling date(s): 04/02/14 Sample Number(s): 14040200281

2. Class B Pathogen Reduction: (Check off and fill in applicable portion)

- ☒ anaerobic for 19 days at 35.6 °C (96.1 °F) (range for past month)
Class B: either 15 days at 35°C to 55°C or 60 days at 20°C
☐ aerobic digestion for to days at to degrees F / C (range for past month)
Class B: time (days) \geq 20 - 15(temp, degrees C) for times between 40 and 60 days
☐ drying beds for to months (attach records of dates in and out)
Class B: time > 3 months; 2 months > 0 degrees C
☐ fecal coliform: geometric mean of seven samples = (attach lab results)
Class B: geometric mean of seven samples is < 2,000,000 mpn
☐ lime stabilization: pH at 2 hours after addition =
Class B: pH 2 hours after addition of lime is \geq 12

3. Vector Attraction Reduction:

- ☒ Option 1: % VS_{in} = 76 % VS_{out} = 59 % VSR = 54 % per Van Kleeck method
VAR: VSR > 38%
☐ Option 2/3: Bench scale test: % VSR = after days
VAR: additional VSR < 17% after 40 days (anaerobic), < 15% after 30 days (aerobic)
☐ Option 4: SOUR =
VAR: SOUR < 1.5 mg O₂/hr/gram (dry weight)
☐ Option 5: Composted days at temps of to degrees F/C (attach times/temps)
VAR: temp > 40 degrees C for 14 days, w/5 days > 45 degrees C
☐ Option 6: time alkali added: pH after 2 hours = pH after 22 hours =
VAR: pH \geq 12 for 2 hours after alkali addition, \geq 11.5 for additional 22 hrs
☐ Option 7: % solids = Stabilization method:
VAR: stabilized solids > 75%
☐ Option 8: % solids =
VAR: unstabilized solids > 90%
☐ Option 9/10: Applier will inject/incorporate within hours
VAR: injection within 1 hour, incorporation within 6 hours

Certification: I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or the persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name and Official Title: Mike Sullivan - Division Engineer

Phone: (562) 908-4288 Extension 2801 E-mail: msullivan@lacsds.org

Prepared By: G. Salva GS Reviewed By: M. Bao MB

Signature: [Signature] Date: 6/3/14

April 2014 BIOSOLIDS MANAGEMENT PROGRAM
JWPCP Biosolids Cake -Total Metals Concentrations
Mg/Kg Dry Weight

Sample No.	Date	% TS	As	Cd	Cr	Cu	Pb	Hg	Mo	Ni	Se	Zn	Al
14010800328	1/7/2014	29.2	8.34	6.5	66.8	365	16.4	0.88	19.7	51.6	26.2	819	6,350
14020500337	2/4/2014	29	8.08	6.34	71.6	383	21.3	0.88	17.1	51.2	25.6	824	-
14030500291	3/4/2014	29.2	8.74	5.44	73.8	349	19.8	0.83	18.8	49.1	27.1	830	-
14040200281	4/1/2014	28.9	8.56	4.5	87	335	18.4	0.69	19.3	46.8	24.6	773	6,720
MEAN		29	8.43	5.7	75	358	19.0	0.82	18.7	49.7	25.9	812	6,540
MAX			8.74	6.5	87	383	21.3	0.88	19.7	51.6	27.1	830	6,720
TABLE 1 LIMITS		\	75	85	\	4,300	840	57	75	420	100	7,500	\
TABLE 3 LIMITS		\	41	39	\	1,500	300	17	\	420	100	2,800	\

Sample No.	Date	% TS	Sb	Ba	Be	Co	Fe	Mn	K	Ag	Tl	Sn	V
14010800328	1/7/2014	29.2	3.83	1,520	< 0.2	9.08	93,000	217	868	4.06	< 0.2	38.1	91.6
14020500337	2/4/2014	29	-	-	-	-	-	-	-	-	-	-	-
14030500291	3/4/2014	29.2	-	-	-	-	-	-	-	-	-	-	-
14040200281	4/1/2014	28.9	3.77	1,370	< 0.2	7.06	82,600	212	887	3.96	< 0.2	36.3	57.2
MEAN		29	3.80	1,450	ND	8.07	87,800	215	878	4.01	ND	37.2	74.4
MAX			3.83	1,520	ND	9.08	93,000	217	887	4.06	ND	38.1	91.6

\ = No limit

ND = Not Detected

-- = No Sample

Statistics use detected values only

April 2014 BIOSOLIDS MANAGEMENT PROGRAM
JWPCP Biosolids Cake - Nutrients and Miscellaneous Constituents
Mg/Kg Dry Weight (or as indicated)

Sample No.	Date	% TS	Sulfur	PO ₄	NH ₃ -N	Org-N	NO ₃ -N	NO ₂ -N	Boron	Paint FilterTest (ml/100 g)	pH
14010800328	1/7/2014	29.2	37,900 ^A	86,800	6,680	49,000	< 137	< 3.42	23.7	< 1.0	8.2
14020500337	2/4/2014	29	36,600 ^B	-	6,550	47,700	< 138	3.77	-	-	-
14030500291	3/4/2014	29.2	33,800 ^C	-	5,740	47,700	< 137	4.7	-	-	-
14040200281	4/1/2014	28.9	34,100 ^D	79,000	6,720	47,200	< 138	3.87	23	< 1.0	8
MEAN		29	35,600	82,900	6,420	47,900	ND	4.1	23	ND	8
MAX			37,900	86,800	6,720	49,000	ND	4.7	23.7	ND	8.2

ND = Not Detected

- = No Sample

Statistics use detected values only.

A = Lab ID: 14010800329

B = Lab ID: 14020500336

C = Lab ID: 14030500292

D = Lab ID: 14040200280

2nd Quarter 2014 BIOSOLIDS MANAGEMENT PROGRAM
JWPCP Biosolids Cake - Soluble Metals Concentrations - Mg/L
Analyzed by California Title 22 Waste Extraction Test

Sample No.	Date	Al	Sb	As	Ba	Be	Cd	Cr	Co	Cu	Fe
14010800331	1/7/2014	123.000	0.0662	0.140	30.900	< 0.010	0.0063	0.998	0.141	< 0.040	2,280
14040100283	4/1/2014	142.000	0.0613	0.133	38.100	< 0.010	< 0.005	1.130	0.112	< 0.040	2,000
MEAN		133.000	0.0638	0.137	34.500	ND	0.0063	1.064	0.127	ND	2,140
MAX		142.000	0.0662	0.140	38.100	ND	0.0063	1.130	0.141	ND	2,280
TITLE 22 STLCs		\	15	5.0	100	0.75	1	5	80	25	\

Sample No.	Date	Pb	Hg	Mo	Ni	K	Se	Ag	Tl	Sn	V	Zn
14010800331	1/7/2014	0.0504	< 0.0005	0.251	0.957	< 0.040	0.0331	< 0.020	< 0.040	< 0.040	1.770	8.340
14040100283	4/1/2014	0.0515	< 0.0005	0.246	0.924	< 0.040	0.0353	< 0.020	< 0.040	< 0.040	1.120	13.700
MEAN		0.0510	ND	0.249	0.941	ND	0.0342	ND	ND	ND	1.445	11.000
MAX		0.0515	ND	0.251	0.957	ND	0.0353	ND	ND	ND	1.770	13.700
TITLE 22 STLCs		5.0	0.2	350	20	\	1.0	5	7.0	\	24	250

ND = Not Detected

\ = No Limit

Statistics use detected values only.

2014 BIOSOLIDS MANAGEMENT PROGRAM

JWPCP Digester Performance

Month	Temp (°F)	Detention Time (Days)	VSD (%)
January	96.1	19	54
February	96.1	19	53
March	96.1	19	53
April	96.1	19	54
MEAN	96.1	19	54
MIN	96.1	19	53

Semi-Annual JWPCP Biosolids Cake Detected Priority Pollutants Mg/Kg on a Dry Weight Basis

Date	1/8/14
Sample Number	14010800328
	14010800329
Constituent	Result (mg/kg)
Arsenic	8.34
Cadmium	6.5
Chromium	66.8
Copper	365
Lead	16.4
Mercury	0.88
Nickel	51.6
Selenium	26.2
Silver	4.06
Zinc	819
Antimony	3.83
Cyanide	2.43
PP'-DDD	0.061
OP'-DDD	0.064
Diethylhexyl Phthalate	209